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10/551,781	10/05/2005	Gregorius Maria Hubertus Goyarts	GOY4	5611
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TROUTMAN SANDERS LLP			KHATRI, PRASHANT J	
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600 PEACHTREE STREET, N.E.			ART UNIT	PAPER NUMBER
SUITE 5200			1794	
ATLANTA, GA 30308-2216				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/551,781	Applicant(s) GOYARTS, GREGORIUS MARIA HUBERTUS
	Examiner PRASHANT J. KHATRI	Art Unit 1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 November 2009.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1 and 4-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1 and 4-21 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 11/11/2009

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

In response to RCE filed 11/11/2009. Claims 1 and 4-21 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/11/2009 has been entered.

Information Disclosure Statement

2. The information disclosure statement filed 11/11/2009 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 4-10, 13-15, and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al. (**US 5306267**) in view of Levy (**US 5114418**) and Tolbert et al. (**US 20010001300**) with evidence provided by Gagliardi et al. (**US 6245693**) and Carlucci et al. (**US 20020141898**) and Peterson (**US 5562648**).

5. Hahn et al. disclose a reusable diaper (**FIGS. 3 and 4**) that is comprised of at least a front panel (**element 12**), middle panel (**element 14**), and back panel (**element 16**). Prior art discloses the front panel is comprised of a polyester wicking fabric, cotton, polyester, nylon, and the like (**col. 5, lines 22+**). The middle panel is an absorbent layer comprised of viscose rayon (**col. 5, lines 44+**). The back panel is a liquid impermeable material such as nylon (**col. 7, lines 24+**). Further, prior art discloses the front and back panels may be joined together by adhesives (**col. 7, lines 57+**). Regarding claims 7 and 21, prior art discloses additional layers (**element 18**) may be disposed between the middle panel and the front panel that are cotton (**col. 6, lines 39+**). As disclosed by prior art, these layers are comprised of cotton, which is one of the least allergenic materials (**col. 6, lines 40+**). Examiner takes the position that this is equivalent to the presently claimed additional anti-allergy layer as cotton is a known material that is very anti-allergenic. As evidenced by Peterson, the polyester wicking fabric is an open knit structure having four channel fibers used in the same way as Hahn (**col. 3, lines 61+**; **Peterson**). Given that the a "fraying-free fabric" is considered by Applicant to be a knitted fabric having "special measures" taken to keep the fabric

from fraying and as such considered in the broadest, reasonable sense, it is the Examiner's position that the polyester wicking fabric of Hahn having an open knit structure would meet the instant limitation. However, prior art is silent to the use of adhesives in the interfacial areas, the use of moisture-curable plastic materials, and placing adhesive material on the edges of a surface to form a border pattern.

6. Levy discloses a highly absorbent, leak-proof, breathable diaper. Prior art discloses a three-layer diaper that is comprised of at least one layer that is a fabric and reusable (*FIG. 1; col. 1, lines 33+*). Regarding the patterning of adhesive disclosed in claims 1-2 and 8, prior art discloses a urethane adhesive that is applied between the top layer (**element 10**) and intermediate layer (**element 12**) and intermediate layer and bottom layer (**element 14**). Further, it is noted that the adhesive material between the above layers is applied by using a cross-hatch, line-gravure, or dot-roller to ensure the resulting laminations remain intact after machine washings (*col. 2, lines 25+*). Given that Levy discloses Further, Examiner takes the position that the dot-roller would form a series of dots to form the adhesive pattern and forms the presently claimed interfacial region between the layers as shown in Figure 1. Regarding the finishing, it is noted that since the prior art discloses a laminate structure that contains adhesive material in the interfacial regions, Examiner takes the position that the resultant laminate does not undergo any further finishing steps. Further, as shown by prior art, the material is washed for testing purposes to determine durability after curing of the adhesive (*col. 2, lines 30+*). Concerning the amount of adhesive applied, it is considered to be an optimizable feature given that the amount of adhesive directly affects the bond strength

of the laminate that one of ordinary skill in the art can adjust. See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Regarding claim 4, given that Levy discloses that the patterning is done "so as to give a satisfactory level of bond strength and to insure that resulting laminations remain intact", it is the Examiner's position that one of ordinary skill in the art in order to maintain such standards would have designed a pattern that would include the border as presently claimed in claim 4. Furthermore, as evidenced by Gagliardi et al. and Carlucci et al., forming a border to maintain adhesiveness is well-known (*Figures 1 in each reference*).

7. Tolbert et al. disclose a method of constructing textile products using curable hot melt adhesives and products made thereof. Prior art discloses that the adhesive used is a moisture curable hot melt polyurethane that reacts with moisture present in the atmosphere to become a thermoset adhesive (*para. 0016*). Prior art also states the adhesive material may be applied between the surfaces of two or more adjacent textile fabrics to form a seam securing the fabrics to each other (*para. 0015*). Concerning the phrase "fully moisture-cured", Examiner takes the position that the phrase means degree of curing and as disclosed by prior art, the process is dependent on time span the textiles and adhesives are allowed to cure (*para. 0038-0053*). Furthermore, prior art discloses that the full cure time for polyurethane adhesive is a period from 1 to 10 days (*para.0049*). Therefore, it is clear that the polyurethane adhesive is fully moisture cured as presently claimed. Prior art also discloses the adhesive material is applied at an initial melt temperature (*para. 0039*). Furthermore, it is noted that the adhesive material is solid at room temperature and once a softening point temperature is reached, a

phase change occurs (i.e. solid to liquid phase change) (*para. 0038*). Examiner takes the position that the application of the adhesive material at a temperature above the softening point is equivalent to Applicant's claim that the adhesive material is applied at a temperature higher than the melting point. Prior art further discloses the curable hot melt adhesives are advantageous because they do not require a discrete or separate cure step and using said hot melt adhesives in the presence of various textiles such as cotton accelerate the curing process (*para. 0048*). Examiner therefore takes the position that the production process is sped up and considered to be cheaper as the curing step would increase time and decrease productivity of a production line.

8. However, note that while Levy and Tolbert et al. do not disclose all the features of the present claimed invention, Levy and Tolbert et al. are used as teaching references, and therefore, it is not necessary for these secondary references to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather these references teach certain concepts, namely, patterning of adhesive materials in the interfacial regions and the use of hot melt moisture curable adhesives in order to ensure the resulting laminations remain intact after machine washings and that the production process is sped up and considered to be cheaper as the curing step would increase time and decrease productivity of a production line and in combination with the primary reference, discloses the presently claimed invention.

9. All of the elements were known within the art. The only difference is a single disclosure containing all of the presently claimed elements. Hahn et al. disclose a

reusable diaper (**FIGS. 3 and 4**) that is comprised of at least a front panel (**element 12**), middle panel (**element 14**), and back panel (**element 16**). However, prior art is silent to the use of adhesives in the interfacial areas, the use of moisture-curable plastic materials, and placing adhesive material on the edges of a surface to form a border pattern. Levy discloses a three-layer laminate that is a highly absorbent, leak-proof, breathable diaper comprising a patterned adhesive material disposed in the interfacial regions between the layers. Tolbert et al. disclose a method of constructing textile products using curable hot melt adhesives and products made thereof.

The motivation to combine the above references is drawn towards the patterning the adhesive material between the each layer a three-layer laminate applied by using a cross-hatch, line-gravure, or dot-roller to insure the resulting laminations remain intact after machine washings. The use of a hot melt moisture-curable adhesive discloses the curable hot melt adhesives are advantageous because they do not require a discrete or separate cure step and using said hot melt adhesives in the presence of various textiles such as cotton accelerate the curing process. The resultant article is a durable material that can withstand multiple washings with interfacial adhesive patterning in three-layer systems and also providing for a fast and cheap way to produce materials containing adhesives as shown by Tolbert. Therefore, it would have been obvious to one of ordinary skill in the art to apply a patterned hot melt moisture curable adhesive in the interfacial regions of the laminate disclosed by Hahn et al.

10. Claims 11-12 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al. (**US 5306267**) in view of Levy (**US 5114418**) and Tolbert et al. (**US 20010001300**) as applied to claims 8-10 and 15 above, and further in view of McIntyre (**US 4911948**).

11. Prior art discloses the above in paragraphs 10-15. However, prior art is silent to the use of screen printing.

12. McIntyre discloses a method of screen printing of hot melt adhesives onto moving web substrates such as diapers and the like (*col. 2, lines 19+*). The screen printing apparatus is comprised of a slot nozzle within a screen cylinder sleeve (*col. 3, lines 37+*). Furthermore, it is noted that the hot melt adhesive material can be a polyurethane moisture cure type (*col. 6, lines 14+*). Regarding the heated stencil, prior art discloses the screen cylinder sleeve is heated to prevent solidification of the adhesive material (*col. 2, lines 39+*). Examiner takes the position that the screen cylinder has pores to allow dispersion of the adhesive material as the stencil as the adhesive material is distributed through the pores, which is the primary purpose of the stencil. Given that the screen cylinder is heated to prevent the clogging of the pores, the temperature would inherently be at a temperature above the melting point as if the temperature would be below the melting point, the pores of the screen cylinder would be clogged. Concerning the seamless nature of the cylinder, as shown by prior art in Figure 3, there is no seam on the cylinder. The process and apparatus as shown allows for improved speed and viscosity regulation by heating (**cols. 1 and 2**). Regarding the cutting of individual articles made from the continuous process, prior art discloses a die

cutting process may be added after the screen printing process (**col. 2, lines 8+**).

Examiner takes the position that the use of a cutting process after lamination to produce individual articles is an obvious addition to the manufacturing process as it would allow for easier packaging of goods for sale.

13. However, note that while McIntyre does not disclose all the features of the present claimed invention, McIntyre is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely, screen printing of adhesive material using a roller stencil in order to increase production of articles containing adhesives on web material and in combination with the primary reference, discloses the presently claimed invention.

All of the elements were known within the art individually. The only difference was a single disclosure containing all of the presently claimed elements. Prior art discloses the above in paragraphs 6-10. However, prior art is silent to the screen printing process. McIntyre discloses a rotary screen printing process onto web substrates using a hot melt adhesive. Although McIntyre only discloses the screen printing process onto one layer of material, it would be obvious to one with ordinary skill in the art to use a second screen printing section to coat a second layer of material. The motivation to combine the above references is drawn towards the increase in production and uniformity of the adhesive layer as shown by McIntyre (**col. 2, lines**

25+). Therefore, it would have been obvious to one of ordinary skill in the art to apply the adhesive material in the resultant laminate shown above.

Response to Arguments

Applicant's arguments filed 11/11/2009 have been fully considered but they are not persuasive. Applicant asserts that Hahn does not teach the presently claimed underpads. The phrase "underpads" is considered a statement of intended use. The intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Because the laminate of Hahn, Levy and Tolbert is not structurally different from the underpad as claimed by Applicant, the fade protector as claimed does not provide patentable distinction over the prior art of record. Applicant further asserts that based upon a reference that has not been rejected upon, the prior art is invalid. It is not clear what Applicant is asserting given that nearly all the claims are drawn towards a multilayer washable material. While it is noted that claim 15 recites the use the multilayer material as an underpad, the Examiner maintains that the limitation is an intended use statement and treated as such. Furthermore, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does

not criticize, discredit, or otherwise discourage the solution claimed...." *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Regarding the Tolbert reference, it is acknowledged that Tolbert is silent to the presently claimed border pattern for the adhesive. However, it is noted that patterning of adhesives in various shapes to produce the desired adhesive effect is well-known in the art. Given that Levy discloses that the patterning is done "so as to give a satisfactory level of bond strength and to insure that resulting laminations remain intact", it is the Examiner's position that one of ordinary skill in the art in order to maintain such standards would have designed a pattern that would include the border as presently claimed in claim 4. Furthermore, as evidenced by Gagliardi et al. and Carlucci et al., forming a border to maintain adhesiveness is well-known (**Figures 1 in each reference**). Concerning the McIntyre reference, Examiner notes that McIntyre is a teaching reference for a production line for providing an adhesive to diapers and the like.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRASHANT J. KHATRI whose telephone number is (571)270-3470. The examiner can normally be reached on M-F 8:00 A.M.-5:00 P.M. (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patricia L. Nordmeyer/
Primary Examiner, Art Unit 1794

PRASHANT J KHATRI
Examiner
Art Unit 1794